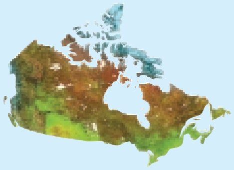


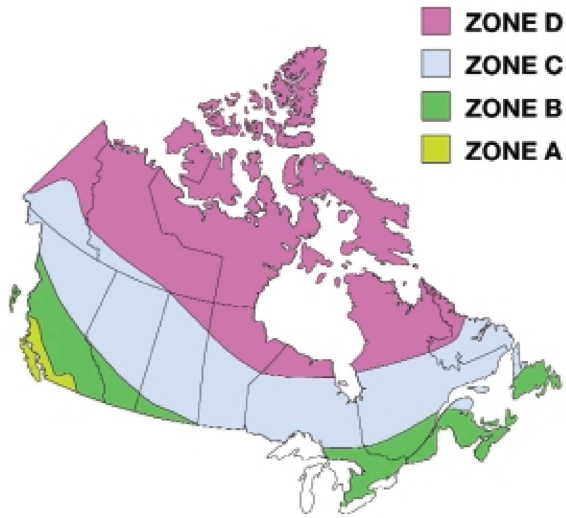
Windows, Doors & Skylights

updated April 2005

WINDOWS

When Canadians want to save energy and money and help the environment, they look for the ENERGY STAR® symbol to identify energy-efficient products.

Even though windows, doors and skylights do not consume energy, they can be a significant source of heat loss in a home or building. ENERGY STAR qualified products will save money by reducing overall annual energy costs by up to 12 percent. They will also help keep the home or building more comfortable year-round, reduce outside noise and may have a lot less condensation in cold weather compared with a conventional product.



How Do These Products Qualify for ENERGY STAR?

To be ENERGY STAR qualified, products must meet specific energy efficiency levels that have been set for four climate zones (A, B, C and D) in Canada. In addition, all products must be **certified** by an independent third party for their energy efficiency.

The four climate zones were developed using heating degree-days, a measure of annual average temperature. The efficiency levels measure how well a window, door or skylight insulates against the cold or how well it uses the sun's heat to supplement the home's or building's heating system. Because the climate becomes progressively colder from Zone A to Zone D, the levels are more stringent for each successive zone.

Most products sold in Canada will qualify for more than one zone. The more zones a product qualifies for, the more energy efficient it is.

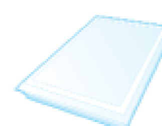
ENERGY STAR Requirements For Windows and Doors (Products may meet requirements with either their U-and R-Value OR their Energy Rating)

Zone	Maximum U-Value (Metric)	Maximum U-Value (Imperial)	Minimum R-Value (Imperial)	OR	Minimum Energy Rating (Most Windows and All Doors)		Minumum Energy Rating (Picture Windows Only)	
					1998* Standard	2004 Standard	1998 Standard	2004 Standard
A	2.00	0.35	2.9	or	-16	17	-6	27
B	1.80	0.32	3.2	or	-12	21	-2	31
C	1.60	0.28	3.6	or	-8	25	+2	35
D	1.40	0.25	4.0	or	-5	29	+5	39

*The methodology used to calculate Energy Ratings, as defined by the Canadian Standards Association, was recently changed. Under the new 2004 Standard, all windows and doors have positive ER numbers.

ENERGY STAR Requirements For Skylights

Zone	Maximum U-Value (Metric)	Maximum U-Value (Imperial)	Minimum R-Value (Imperial)
A	3.10	0.54	1.8
B	2.80	0.50	2.0
C	2.60	0.46	2.2
D	2.38	0.42	2.4



Natural Resources Canada
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Key Features

ENERGY STAR qualified windows, doors and skylights will have many of the following features:

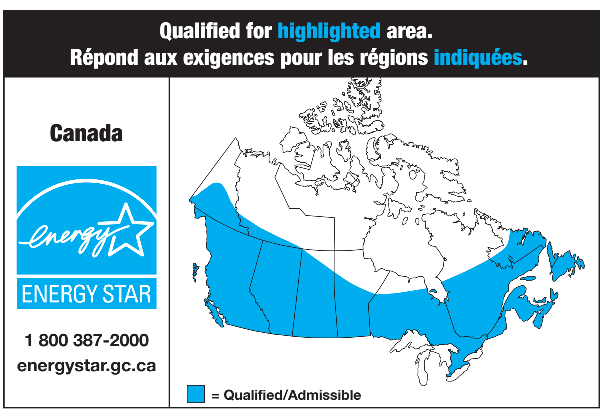
- double or triple glazing with a sealed insulating glass unit
- low-emissivity (low-e) glass
- inert gas, such as argon or krypton, in the sealed unit
- low conductivity or "warm edge" spacer bars
- insulated frames, sashes and door cores
- good airtightness

How to Identify a Qualified Product

Most qualified products will be visibly labelled with the ENERGY STAR symbol **and** the zone or zones that the product qualifies for. This information will also be in the product literature for each model, along with an explanation of the four climate zones in Canada.



Sample Label Without a Map Showing Qualification for Zones A and B



Sample Label With a Map of Canada Showing Qualification for Zones A, B and C

Take the One-Tonne Challenge

The Government of Canada has asked all Canadians to take the One-Tonne Challenge by reducing their annual GHG emissions by one tonne, or about 20 percent.

If all of the original windows and doors in an average older home were replaced by ENERGY STAR qualified windows and doors, the household energy consumption would be reduced by about 7 percent which would save three quarters of a tonne of greenhouse gas (GHG) emissions annually. If ENERGY STAR qualified windows, doors and skylights where installed in an average new home instead of conventional products, energy consumption would be reduced by about 12 percent which would save one tonne of GHG emissions annually.

ENERGY STAR in General

Manufacturers and dealers who want to sell ENERGY STAR qualified windows, doors and skylights in Canada must sign an administrative arrangement with Natural Resources Canada's Office of Energy Efficiency (OEE), which administers ENERGY STAR in Canada. By signing the arrangement, the manufacturer or dealer verifies that the products to be labelled meet ENERGY STAR specifications for Canada.

Availability

Because ENERGY STAR for windows, doors and skylights is new in Canada, qualified products may not be available in all areas. If this is the case, look for the **Key Features** noted in this fact sheet to obtain an energy-efficient product.

For more information on ENERGY STAR in Canada, visit the Web site at energystar.gc.ca, or to order ENERGY STAR publications call the publications line at 1 800 387-2000 (toll-free).

For more information on the One-Tonne Challenge, visit the Web site at www.climatechange.gc.ca or call 1 800 O-Canada (1 800 622-6232) or 1 800 465-7735 (teletype for the hearing-impaired).

ENERGY STAR HIGH EFFICIENCY HAUTE EFFICACITÉ

Natural Resources Canada's Office of Energy Efficiency
Leading Canadians to Energy Efficiency at Home, at Work and on the Road

One-Tonne CHALLENGE
www.climatechange.gc.ca

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